

REMARKS

Claims 1-20 are all the claims pending in the application.

Applicants note that claims 5, 6, 12 and 19 have been amended in a non-narrowing manner to avoid the possibility of the limitations recited therein being interpreted under 35 U.S.C. § 112, sixth paragraph. These amendments were not made in response to any prior art or other rejection.

Applicants also note that a number of editorial amendments have been made to the specification and abstract for grammatical and general readability purposes. No new matter has been added.

I. Claim Rejections Under 35 U.S.C. § 102

The Examiner has rejected claims 1-8, 15 and 16 under 35 U.S.C. § 102(b) as being anticipated by Strolle et al. (U.S. 5,673,355). Applicants respectfully traverse this rejection on the following basis.

Claim 1 recites the features of extracting a first predetermined frequency component in three-dimensional space from a luminance signal, and eliminating a second predetermined frequency component from the luminance signal according to the first predetermined frequency component value. Applicants respectfully submit that Strolle fails to disclose or suggest such features.

Strolle discloses an adaptive deemphasis circuit and a control signal generator 510 (see Fig. 25 and col. 38, lines 16-20). As shown in Fig. 25 of Strolle, an input terminal 501 connects to the input terminal of a horizontal low pass filter (HLPF) 502 and to the input terminal of a horizontal high pass filter (HHPF) 504. Thus, an input luminance signal from the input terminal

501 is branched into two directions, with one branch leading to the filter 502 and the other branch leading to the filter 504 (see Fig. 25).

Therefore, while Strolle discloses a filter 502 which passes a low frequency component of a luminance signal, and a filter 504 which passes a high frequency component of a luminance signal, Applicants respectfully submit that the filter 504 of Strolle does not remove a second predetermined frequency component from the luminance signal according to a first predetermined frequency component value extracted from the filter 502.

That is, in Strolle, the functions of the filter 502 and filter 504 are independent of one another. Each of these filters receives the input luminance signal from the input terminal 501, but in no way whatsoever does the filter 504 remove a frequency component according to the frequency component extracted by the filter 502. In contrast, the filter 504 passes a frequency component independent of the frequency component passed by the filter 502.

In view of the foregoing, Applicants submit that claim 1 is patentable over the cited prior art, an indication of which is respectfully requested. Claims 2-4 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

In addition, claim 2 recites that the first predetermined frequency component is extracted by filtering the luminance signal with a horizontal filter having a pass-band of 3.58 MHz, and further filtering the luminance signal in a temporal direction with a filter having a pass-band of 15 Hz.

The Examiner alleges in the Office Action that Strolle discloses at col. 3, lines 37-63 that a first predetermined frequency component is extracted by filtering a luminance signal with a horizontal filter having a pass-band of 3.58 MHz, and that Strolle discloses at col. 18, lines 14-20

that the signal is further filtered in a temporal direction with a filter having a pass band of 15 Hz. Applicants respectfully disagree.

Regarding the disclosure at col. 3, lines 37-63 of Strolle, Applicants note that this passage merely describes a construction of a composite video signal (i.e., a video signal composed by the luminance signal and the chrominance signal) encoded in quadrature amplitude modulation of a suppressed 3.58 MHz color subcarrier.

Further, regarding the disclosure at col. 18, lines 14-20 of Strolle, Applicants note that this passage recites that folded highs alternate in phase at 15 Hz, and therefore, that it is impractical to detect frame-to-frame motion after folding the luminance signal frequency spectrum (see col. 18, lines 14-18). Therefore, in Strolle, motion is detected prior to folding by temporal differencing and spatial lowpass filtering of the separated baseband luminance signal.

Thus, while Strolle discloses that folded highs alternate in phase at 15 Hz, there is no disclosure in Strolle of a filter having a pass-band of 15 Hz. Further, while Strolle discloses that motion is detected by temporal differencing and spatial lowpass filtering (see col. 18, lines 18-20), there is absolutely no disclosure or suggestion in Strolle of a first predetermined frequency component extracted by a filter having a pass-band of 3.58 MHz being further filtered by a filter having a pass-band of 15 Hz, as recited in claim 2.

In view of the foregoing, Applicants submit that claim 2 is patentable over Strolle, an indication of which is respectfully requested.

Regarding claim 5, Applicants note that this claim recites the feature of a time filter operable to filter an output of the horizontal filter in a temporal direction. The Examiner alleges that filter 514 as shown in Fig. 25 of Strolle corresponds to the time filter as claimed. Applicants respectfully disagree.

In particular, Applicants note that filter 514 is disclosed by Strolle as being a space horizontal low pass filter (see col. 39, lines 49-53). Accordingly, as filter 514 is plainly disclosed as being a space horizontal low pass filter, Applicants respectfully submit that filter 514 is not a time filter, as recited in claim 5.

In addition, claim 5 recites the feature of a comparator operable decide whether an output of the time filter is equal to or larger than a predetermined threshold. The Examiner alleges that the (1-G) function circuit 515 as shown in Fig. 25 of Strolle corresponds to the comparator as claimed. Applicants respectfully disagree.

In particular, Applicants note that the (1-G) function circuit 515 operates to transform the signal shown in Fig. 26e to the signal shown in Fig. 26f (see col. 39, lines 56-59). Accordingly, as is clear from Figs. 26e and 26f, Applicants submit that the (1-G) function circuit 515 in no way whatsoever performs the function of deciding whether an output of a time filter is equal to or larger than a predetermined threshold, as recited in claim 5.

Further, Applicants note that claim 5 recites the feature of a subtracter operable to subtract an output of the gain adjuster from the luminance signal components. The Examiner alleges that adder 506 as shown in Fig. 25 corresponds to the subtracter as claimed. Applicants respectfully disagree.

In particular, as the adder 506 of Strolle performs the function of adding (see col. 39, lines 53-55), it is clear that the adder 506 does not perform a function of subtracting an output of a gain adjuster from luminance signal components, as recited in claim 5.

In view of the foregoing, Applicants submit that claim 5 is patentable over Strolle, an indication of which is respectfully requested.

Regarding claim 6, Applicants note that this claim recites the features of a filter operable to filter the luminance signal components of the component video signal in a horizontal direction and in a temporal direction, a comparator operable to decide whether an output of the filter is equal to or larger than a predetermined threshold, and a subtracter operable to subtract an output of the gain adjuster from the luminance signal components. For similar reasons as discussed above with respect to claim 5, Applicants respectfully submit that Strolle fails to disclose or suggest such features.

In view of the foregoing, Applicants submit that claim 6 is patentable over Strolle, an indication of which is respectfully requested.

Claim 7 depends from claim 5, and claim 8 depends from claim 6. Accordingly, Applicants submit that these claims are patentable at least by virtue of their dependency.

Regarding claim 15, Applicants note that this claim recites the features of extracting a first predetermined frequency component from the luminance signal components in a three-dimensional space, and eliminating a second predetermined frequency component from the luminance signal components according to a size of the first predetermined frequency component when elimination of dot crawls is designated. For at least similar reasons as discussed above with respect to claim 1, Applicants submit that Strolle fails to disclose or suggest such features.

Accordingly, Applicants submit that claim 15 is patentable over Strolle, an indication of which is respectfully requested.

Regarding claim 16, Applicants note that this claim recites that the first predetermined frequency component is extracted by filtering the luminance signal components in a horizontal direction with a filter having a pass-band of 3.58MHz, and further filtering the luminance signal components in a temporal direction with a filter having a pass-band of 15Hz. For at least similar

reasons as discussed above with respect to claim 2, Applicants submit that Strolle fails to disclose or suggest such features.

Accordingly, Applicants submit that claim 16 is patentable over Strolle, an indication of which is respectfully requested.

II. Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 9-14 and 17-20 are allowed. Applicants note that minor changes have been made to claims 9-14 and 17-20. Applicants respectfully submit, however, that such changes do not affect the patentability of these claims over the cited prior art.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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December 30, 2004